

## SHORT REPORT

# Medial Circumflex Femoral Artery Pseudoaneurysm Following Total Hip Replacement Treated by Coil Embolisation

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## Introduction

Vascular injury is a rare complication following total hip arthroplasty. Most reported cases of vascular trauma around the hip concern fracture and its surgical correction. Pseudoaneurysm formation often presents late. Persistent hip pain, thigh swelling and anaemia should raise suspicion. We present a case of a pseudoaneurysm of the medial circumflex femoral artery that presented following a left total hip arthroplasty using a cemented Charnley Elite system via an antero-medial approach.

## Case Report

A 73-year-old lady developed a painful swelling in the medial aspect of her thigh following left total arthroplasty, for degenerative joint disease. Duplex ultrasound scanning revealed a pseudoaneurysm which was subsequently imaged by arteriography (Fig. 1).

Ultrasound guided percutaneous thrombin injection was attempted initially and partial success was obtained with 2000 units, the maximum licensed dose. Only one of the lobes was occluded in this way. A week later, successful embolisation was subsequently achieved using superselective catheterisation and coil embolisation using three 3 mm × 3 mm soft



**Fig. 1.** Bilobed pseudoaneurysm of left medial circumflex femoral artery following total hip replacement.

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**Fig. 2.** Post coil embolisation of medial circumflex femoral artery pseudoaneurysm.

platinum coils (William Cook, Europe, Bjæverskov, Denmark) placed distal and proximal to the neck of the pseudoaneurysm (Fig. 2). The patient was clinically well at follow-up 6 weeks later.

## Discussion

Previous publications regarding arterial injury about the hip report that it is usually as a result of iatrogenic injury to vessels during corrective surgery. These reports however have arisen following surgical correction of hip fractures.<sup>1</sup> Transcatheter embolisation has been used successfully to treat pseudoaneurysm of the profunda femoris when primary hip fracture preceded any surgical procedure.<sup>2,3</sup> We report a pseudoaneurysm of the medial circumflex femoral artery complicating total hip replacement for degenerative joint disease. Following failure of fibrin injections, transcatheter embolisation with soft platinum coils excluded the lesion from the circulation with minimal disturbance to the patient.

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